Manitoba
Health
Research
Council

ANNUAL REPORT

1991 - 1992

MANITOBA HEALTH RESEARCH COUNCIL

P127 - 770 Bannatyne Avenue

Winnipeg, Manitoba R3E 0W3

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93-02482/

CONTENTS

List of Members of the Manitoba Health Research Council 1
Council Secretariat 1
Report of the Chairman 2
1991-92 Fiscal Overview 6
Auditor's Report 7
Financial Statement 8
General Competition
Review Committees
- Operating & Equipment Scientific Review Committee 13
- Personnel Scientific Review Committee 14
- Social & Behavioural Scientific Review Committee 15
- Symposium Support Review Committee 15

List of Operating Grants 16
List of Equipment Grants 18
List of Symposia/Meetings 18
List of Personnel Awards
- Scholarship Renewals 19
- Scholarship Awards 19
- Establishment Grants 20
- Postdoctoral Fellowship Awards 20
- Graduate Studentship Renewals 21
- Graduate Studentship Awards 22

Strategic Health Research Development Fund
Scientific Review Committee 25
University-Industry Operating Grants 26

MEMBERS OF THE MANITOBA HEALTH RESEARCH COUNCIL

Dr. J.L. Hamerton*, Chairman
- Head, Department of Human Genetics, University of Manitoba.

Dr. N.R. Anthonisen**
- Dean, Faculty of Medicine, University of Manitoba.

Dr. C. Becker
- Manitoba Health Research & Planning Directorate

Dr. H.G. Friesen*
- Head, Department of Physiology, University of Manitoba.

Dr. T. Hogan (starting July 1991)**
- Vice-President Research and External Programs, University of Manitoba.

Dr. J. Horne
- Senior Vice-President, Corporate Planning & Development, Health Sciences Centre.

Dr. J.C. Jamieson*
- Head, Department of Chemistry, University of Manitoba.

Dr. R.E. Jordan
- Dean, Faculty of Dentistry, University of Manitoba.

Ms B. Lillie (C.A.)
- Peat Marwick Thorne

Dr. J. Newton
- Manitoba Adolescent Treatment Centre

Mr. G. Palmer*
- Sellors & Associates.

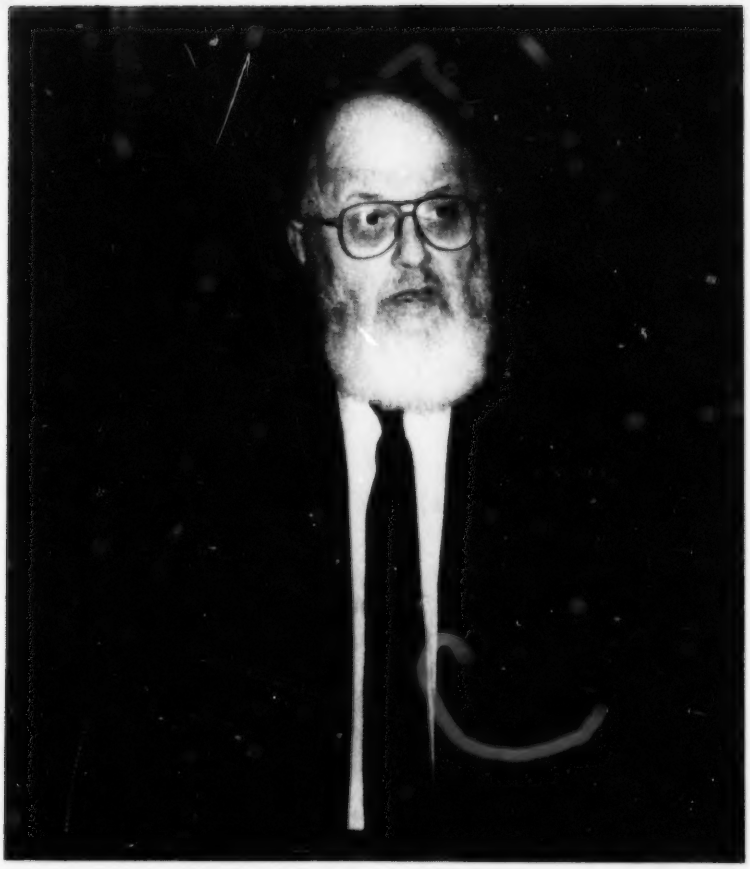
Dr. J. Steele
- Dean, Faculty of Pharmacy, University of Manitoba.

Prof. F.M. Vaisey-Genser** (until July 1991)
- Associate Vice-President (Research), University of Manitoba.

* Members of the Executive/Finance Committee
** Appointed by the University of Manitoba

COUNCIL SECRETARIAT

Executive Director	- Dr. Frits C. Stevens
Administrative Secretary	- Ms Elizabeth C. Ford



REPORT OF THE CHAIRMAN

In my last annual report I highlighted the difficulties of trying to maintain excellence when faced with fixed funding levels and increasing demand and needs; these difficulties continued and became even more severe in the current fiscal year. Nonetheless, Council has had a very busy and productive year with several notable events.

The year started auspiciously with very successful 10th Anniversary celebrations and the finalization of Council's Strategic Plan. Both of these events were reported on in some detail in my previous annual report.

Over summer and early fall, at the request of the Minister of Health, Council chaired a committee to recommend on the siting of new research space for the Children's Hospital Research Foundation, the Health Sciences Centre Foundation and the University of Manitoba. In October the committee recommended that five research floors be added to the proposed "University Downtown Centre" and that careful attention be paid to maintaining the individual corporate identities in this joint facility. All concerned have now agreed to this plan, and we eagerly await the start of construction early in 1993.

In the fall of 1991, Dr. Henry Friesen, a member of Council and one of the individuals responsible for the creation of Council, was appointed President of the Medical Research Council of Canada. We congratulate him on his appointment and look forward to the results of his dynamic leadership already evident in the development of a Strategic Plan.

Council contributed to the Medical Research Council's planning exercise by organizing a local discussion group and I participated the National Planning Conference. Dr. Stevens acted as the facilitator for a discussion group in which there was participation by representatives of trainees,

Unveiling of the 10th Anniversary commemorative plaque at Government House, April 18, 1991. From left to right: Dr. Frits Stevens (Executive Director), Dr. Ken Hughes (Chairman 1987-1988), His Honour the Honourable George Johnson (Lieutenant-Governor), Dr. Allan Ronald (Chairman 1988-1990), Dr. John Hamerton (Chairman 1990-), the Honourable Donald Orchard (Minister of Health) and Dr. Lyonel Israels (Founding Chairman 1981-1987).

young investigators, established investigators and industry. Participants recommended that the Medical Research Council broaden its scope to include all health fields including population based research and that it maintain the strong support for investigator initiated, curiosity oriented research which is central to innovation. The committee further recommended that the Medical Research Council continue to give priority to training programs and consider a bridging program to allow for the orderly transfer of the holders of Scholarship awards to long term University support. It was felt that the Medical Research Council should take the initiative in establishing and maintaining a dialogue with provincial health research granting agencies.

At the Planning Conference the Medical Research Council placed a priority on broadening its mandate to include more emphasis on health care and health services research, while maintaining its current core programs. In this context, a proposal was made to change the name of the Medical Research Council to the Health Research Council of Canada. In view of the message that Governments are unlikely to provide major increases in general funding, emphasis will be placed on building partnerships with industry, private foundations, hospital foundations and provincial agencies.

A similar message came forward from a conference on "The Future of Health and Health Research in Canada" which Dr. Stevens attended on behalf of Council in February 1992. This Conference was organized jointly by the Canadian Medical Association, Canadians for Health Research, and the Canadian Society for Clinical Investigation and was held in Ottawa. The keynote speaker was Dr. Fraser Mustard who emphasized that the country's ability to provide health care is directly related to it's ability to produce wealth which in turn is dependent on our ability for innovation. Dr. Carl Stiller (Univ. of Western Ontario) gave an overview of the distinguished record of achievement of Canadian Health Research both past (e.g. the discovery of insulin) and present (e.g. discovery of the genes for muscular dystrophy and cystic fibrosis) whereas Dr. Phil Gold (McGill) warned, eloquently and convincingly, of the dangerous consequences of under-funding of Research for the future of the health care system. The

Dr. Hamerton receives the final instalment of the Strategic Health Development Fund from the Honourable Donald Orchard, Minister of Health.

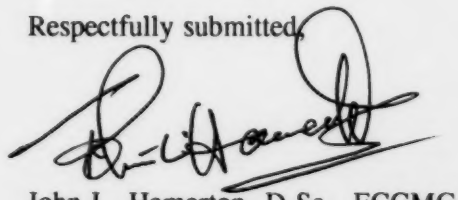
afternoon session was mainly devoted to exploring the effect of lifestyle, social and economic wellbeing, and the environment on health. Several speakers also emphasized the need for research on disease prevention, public health issues and community involvement in setting health care priorities so that one can allocate health care resources based on societal needs as distinct from individual needs. Dr. Martin Hollenberg (University of British Columbia) spoke about the challenges facing biomedical and health care research in Canada which in his view include the need to (i) break down the artificial boundaries between scientific disciplines (ii) further explore funding linkages between public agencies, volunteer agencies and industry (iii) do research into health care delivery and its effectiveness.

In December, Council received last instalment and the interest on the Health Research Development Funds made available to the Province under the terms of bill C 22 (the drug patent act). These funds are used by Council mainly to support University - Industry collaborative projects with a potential for economic benefit. In 1991/92 six new awards were made for a total of just under $600,000 provided by Council and matched by just over $1 million from the private sector. Since the beginning of the program Council has committed approximately $ 1.7 million to University and Hospital based researchers, with the private sector contributing $1.2 million in cash and an estimated $1 million in kind. A review of projects funded to date indicated that several of them show excellent promise of economic success. Most proposals are originated by University or Hospital based researchers rather than by Industry and the gap between the laboratory bench and the development of viable products is still wide. Council has therefore decided to take a more proactive approach in making local health industries aware of the availability and the potential benefits to the private sector of this program. Clearly, in order to accomplish our mandate to maintain and improve the Province's health research and health care capabilities in the face of the economic realities of funding restraint, it is programs such as this that are needed to develop the necessary partnerships. Some thought has to be given as to where continuing funding of this initiative will come from once the Bill C-22 funds are exhausted.

Funding for our regular programs continues to be level at just under $2 million per annum. As competition for national funding becomes tougher year by year, and the cost of doing research increases well beyond general cost of living increases the demands on our resources increase and many excellent proposals remain unfunded. Council therefore continues to reiterate, in the strongest terms possible, the need for increased core funding towards its long-standing objective of 0.4% of health care funding.

As can be gleaned from the foregoing, Council has had a very busy and productive year and has taken an active role in planning for the future of health research in the Province. In closing I would like to, both personally and on behalf of Council, express appreciation to our Executive Director, Dr. Frits Stevens, and our Administrative Secretary, Ms Liz Ford for their hard work, efficiency and dedication. To all Council members goes a debt of gratitude for the time they voluntarily contribute and their unwaning interest in the affairs of Council.

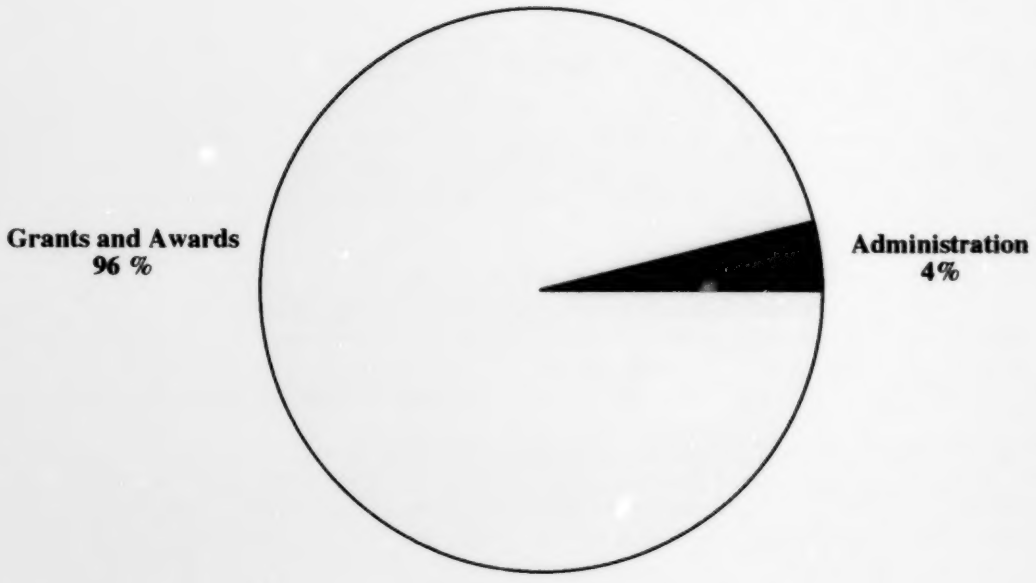
Respectfully submitted,



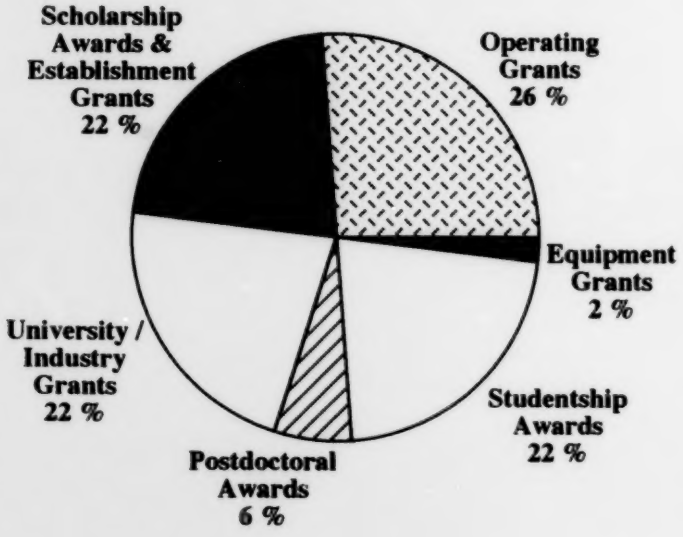
John L. Hamerton, D.Sc., FCCMG
Chairman

1991 - 92 EXPENDITURES
OVERVIEW

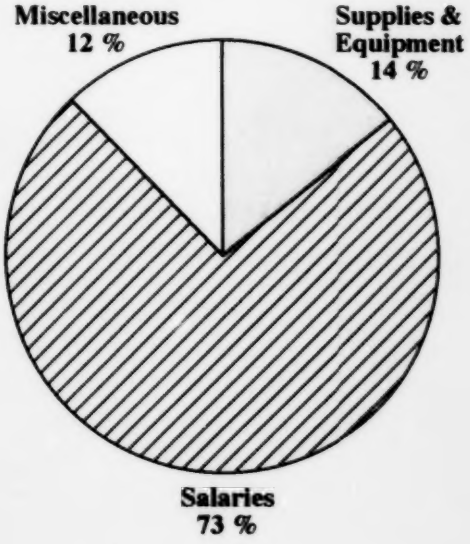
TOTAL EXPENDITURES
$2,795,551



GRANTS AND AWARDS
$ 2,686,161



ADMINISTRATION
$ 109,390



Office of
the Provincial Auditor

905 - 386 Broadway
Winnipeg, Manitoba, CANADA
R3C 3R6

AUDITOR'S REPORT

To the Legislative Assembly of Manitoba

We have audited the balance sheet of The Manitoba Health Research Council as at March 31, 1992 and the statement of revenues, expenditures and fund balance for the year then ended. These financial statements are the responsibility of the Council's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these financial statements present fairly, in all material respects, the financial position of the Council as at March 31, 1992 and the results of its operations for the year then ended in accordance with the accounting policies stated in note 3 to the financial statements.

W. Johnson

Winnipeg, Manitoba
July 16, 1992

W. A. Johnson, CA
A/Assistant Provincial Auditor

GOVERNMENT OF THE PROVINCE OF MANITOBA

THE MANITOBA HEALTH RESEARCH COUNCIL

MANAGEMENT REPORT

The accompanying financial statements are the responsibility of management and have been prepared in accordance with stated accounting policies disclosed in Note 3. In management's opinion the financial statements have been properly prepared and of necessity include some amounts based upon management's best estimates and judgments.

As management is responsible for the integrity of the financial statements, management has established systems of internal control to provide assurance that assets are properly accounted for and safeguarded from loss.

F.C. Stevens, Ph.D
Executive Director
July 16, 1992

THE MANITOBA HEALTH RESEARCH COUNCIL

Balance Sheet
as at March 31, 1992

ASSETS

	1992	1991
Current Assets		
Cash and short term investments	$ 4,054,495	$ 3,809,683
Grant receivable from the Province of Manitoba	486,300	-
Accrued interest receivable	22,367	18,709
	$ 4,563,162	$ 3,828,392

LIABILITIES AND UNEXPENDED FUNDS

Current Liabilities		
Accounts payable	$ 11,081	$ 14,053
Research grants payable	938,967	1,143,697
	950,048	1,157,750
Non-current research grants payable	200,000	70,000
	1,150,048	1,227,750
Unexpended Funds		
Strategic Health Research Development Fund	3,183,730	2,243,216
General Fund	229,384	357,426
	3,413,114	2,600,642
	$ 4,563,162	$3,828,392

Approved on behalf of Council:

Director

Director

THE MANITOBA HEALTH RESEARCH COUNCIL

Statement of Revenues, Expenditures and Fund Balance for the year ended March 31, 1992.

	Strategic Health Research Development Fund	General Fund	Total 1992	Total 1991
REVENUES				
Grant from the Province of Manitoba	$1,340,724	$1,947,300	$3,288,024	$2,947,300
Returned grant funds (note 3b)	-	47,466	47,466	43,181
Interest	245,566	26,967	272,533	324,356
	1,586,290	2,021,733	3,608,023	3,314,837
EXPENDITURES				
Research grants	591,081	2,095,080	2,686,161	2,765,944
Administration	54,695	54,695	109,390	95,908
	645,776	2,149,775	2,795,551	2,861,852
Excess (deficiency) of revenues over expenditures	940,514	(128,042)	812,472	452,985
FUND BALANCE				
Beginning of year	2,243,216	357,426	2,600,642	2,147,657
End of year	$3,183,730	$ 229,384	$3,413,114	$2,600,642

THE MANITOBA HEALTH RESEARCH COUNCIL

Administration Expenditures
for the year ended March 31, 1992

	1992	1991
Accounting and audit	$ 5,600	$ 3,450
Bank charges	197	131
Council and committee expenses	5,323	2,993
Insurance	125	125
Office equipment	8,591	(43)
Postage and delivery	1,347	2,027
Printing and stationery	7,158	12,754
Salaries and benefits	80,196	73,973
Telephone	853	498
Total administration expenditures	$ 109,390	$ 95,908

THE MANITOBA HEALTH RESEARCH COUNCIL

Notes to the Financial Statements
for the year ended March 31, 1992

1. INCORPORATION AND FUNCTION

The Manitoba Health Research Council was established by The Manitoba Health Research Council Act to promote and assist basic, clinical and applied research in the health sciences in Manitoba. The Council relies entirely on grants from the Province of Manitoba through the Department of Health for continued existence.

2. CHARITABLE STATUS

The Manitoba Health Research Council is a registered charity within the meaning of the Income Tax Act.

3. SIGNIFICANT ACCOUNTING POLICIES

a) The accrual basis of accounting is used except for office equipment purchases, which are charged to expenditures in the year of acquisition.

b) Research grants are charged to expenditures when funding is approved by the Council. Research grants returned by the recipients are recorded as revenues when received.

c) Administration expenditures are allocated equally to the Strategic Health Research Development Fund and to the General Fund.

d) Interest revenue is allocated to the Strategic Health Research Development Fund and to the General Fund based on the monthly balances of each fund.

4. STRATEGIC HEALTH RESEARCH DEVELOPMENT FUND

The Government of the Province of Manitoba established a fund to be allocated to qualified research and development projects in the health industry sector in Manitoba. To date $4,340,724 has been received by the Council from this fund in the following years:

1992	$ 1,340,724
1991	1,000,000
1990	2,000,000
	$ 4,340,724

OPERATING & EQUIPMENT SCIENTIFIC REVIEW COMMITTEE

Dr. Arnold Froese (Chairman), Department of Immunology,
University of Manitoba.

Dr. Ranjana Bird, Department of Foods and Nutrition,
University of Manitoba.

Dr. Peter Cattini, Department of Physiology,
University of Manitoba.

Dr. Luke DeLange, Department of Human Genetics,
University of Manitoba.

Dr. Jagdish Khatter, Department of Internal Medicine,
University of Manitoba.

Dr. Pat McNicol, Department of Medical Microbiology,
University of Manitoba.

Dr. Liam Murphy, Department of Physiology,
University of Manitoba.

Dr. Dwight Nance, Department of Pathology,
University of Manitoba.

Dr. Brian Penner, Department of Internal Medicine,
University of Manitoba.

Dr. Grant Pierce, Department of Physiology,
University of Manitoba.

Dr. Brian Schmidt, Department of Internal Medicine,
University of Manitoba.

Dr. Jim Thliveris, Department of Anatomy,
University of Manitoba.

Dr. Eva Turley, Institute of Cell Biology,
Manitoba Cancer Treatment and Research Foundation.

Dr. R. Warrington, Department of Internal Medicine,
University of Manitoba.

PERSONNEL REVIEW COMMITTEE

Dr. L. Jordan, (Chairman) Department of Physiology,
University of Manitoba.

Dr. I. Adamson, Department of Pathology,
University of Manitoba.

Dr. A. Becker, Department of Pediatrics,
University of Manitoba.

Dr. R. Bose, Department of Pharmacology,
University of Manitoba.

Dr. J.E. Bruni, Department of Anatomy,
University of Manitoba.

Dr. D. Chow, Department of Immunology,
University of Manitoba.

Dr. J. Dodd, Department of Physiology,
University of Manitoba.

Dr. N. Fleming, Department of Oral Biology,
University of Manitoba.

Dr. F. Kisil, Department of Immunology,
University of Manitoba.

Dr. B. Schacter, Department of Internal Medicine,
University of Manitoba.

Dr. G. Tomlinson, Department of Chemistry,
University of Winnipeg.

Dr. R. Woods, Department of Biology,
University of Winnipeg.

SOCIAL & BEHAVIOURIAL REVIEW COMMITTEE

Dr. Nora-Lou P. Roos (Chairperson), Department of Community Health Sciences, University of Manitoba.

Ms Jennifer Clinch, WHO Collaborating Centre,
St. Boniface General Hospital Research Centre.

Dr. Karen Grant, Department of Sociology,
University of Manitoba.

Ms. Linda Kristjanson, School of Nursing,
University of Manitoba.

Dr. Dave Martin, Department of Psychology,
University of Manitoba.

Dr. Michael Moffatt, Department of Community Health Sciences, University of Manitoba.

Dr. Gary Rockman, Department of Psychology,
University of Winnipeg.

Dr. Michael Stambrook, Society for Manitobans
with Disabilities.

SYMPOSIUM SUPPORT REVIEW COMMITTEE

Dr. J.L. Hamerton (Chairman), Department of Human Genetics, University of Manitoba.

Dr. H. Friesen, Department of Physiology,
University of Manitoba.

Dr. J. Jamieson, Department of Chemistry,
University of Manitoba.

Mr. G. Palmer, Sellors & Associates.

LIST OF OPERATING GRANTS

Investigator(s), Department, Institution. Project Title	Award Amount
BOLLI, Peter, Medicine, U. of Manitoba. Effect of oxidatively modified low density lipoprotein on platelet activation and interaction with high density lipoprotein.	$ 30,000
CARTER, Stefan A., Physiology U. of Manitoba. Study of peripheral circulation and vascular disease in limbs with severe arterial obstruction.	15,000
CHOCHINOV, Harvey M., Psychiatry, U. of Manitoba. Stimulants for Depression in the Terminally Ill.	35,950
COOMBS, Kevin M., Medical Microbiology, U. of Manitoba. Molecular role of capsid proteins in virus assembly.	36,000
DODD, Janice G., Physiology, U. of Manitoba. Lysine decarboxylase: A potential new marker for prostate cancer.	40,000
DOLYNCHUK, Kenneth N., Biochemistry, U. of Manitoba. Role of tissue transglutaminase in contractural disorders.	33,000
GIESBRECHT, Gordon G., Physical Education, U. of Manitoba. Metabolism, blood flow, core and muscle temperatures during the development of and treatment for immersion hypothermia.	38,000
GUPTON, Annette, Nursing, U. of Manitoba. Trial of Labour Versus Repeat Cesarean Section: Influences on Women's Decision Making..	9,070
HAYGLASS, Kent T., Immunology, U. of Manitoba. Resolution of cryptosporidial infection in normal and immunodeficient individuals.	31,000
JOHNSTON, Janine L., Medicine, U. of Manitoba. Inputs to vestibulo-ocular reflex (VOR) cancellation -lesion studies.	36,000
KARDAMI, Elissavet, Physiology, U. of Manitoba. Comparison of the effects of high and low molecular weight basic fibroblast growth factor on cardiac myocytes, in culture.	36,000
KHALIL, Nasreen, Medicine, U. of Manitoba. Pulmonary Epithelial Cell Production of TGF-B.	42,000

Operating Grants (continued)

Investigator(s), Department, Institution. Project Title	Award Amount
LEONARD, Michael P., Surgery, U. of Manitoba. Combination radiotherapy/immunotherapy in the treatment of high stage murine neuroblastoma.	22,500
MARTIN, Garry L., Psychology, U. of Manitoba. Auditory matching skills: A worthwhile addition to the ABLA test?	12,000
MCCLARTY, Grant, Medical Microbiology, U. of Manitoba. Purine and pyrimidine metabolism in chlamydiae psittaci.	39,000
MCCRINDLE, Brian W., Pediatrics, U. of Manitoba. The Epidemiology of Hospitalization in Childhood.	27,000
MCGOWAN, Ross A., Zoology, U. of Manitoba. Genome imprinting and cellular mosaicism in early development.	30,000
PENNER, S. Brian, Medicine, U. of Manitoba. Neuropeptide Y and the adrenergic system.	35,000
RICHMAN, Joy M., Preventative Dental Science, U. of Manitoba. The role of bFGF in the normal and abnormal growth of the embryonic chick face.	37,500
STEIN, Murray B., Psychiatry, U. of Manitoba. Cardiorespiratory function in panic disorder during wakefulness and sleep.	23,000
TRIGGS-RAINE, Barbara L., Biochemistry, U. of Manitoba. Mutational analysis of the alpha subunit of beta-hexosaminidase.	40,000
WALKER, John R., Psychiatry, U. of Manitoba. Effectiveness of a self-administered treatment manual for panic disorder with agoraphobia used individually.	14,000
ZARAIN-HERZBERG, Angel, Physiology, U. of Manitoba. Transcriptional Analysis of the Cardiac Sarco(endo)plasmic Reticulum Ca2+ATPase Gene.	40,000
	$702,020

LIST OF EQUIPMENT GRANTS

Investigator(s), Department, Institution. Equipment.	Award Amount
BIRD, Ranjana P., Foods and Nutrition, U. of Manitoba. As 325 rotary microtome.	$ 7,000
KARDAMI, Elissavet, Physiology, U. of Manitoba. Automated FPLC TM system.	20,000
KROEGER, Edwin, Faculty of Medicine, U. of Manitoba. Proposal to upgrade the fluorescence-activated cell sorter.	20,000
	$ 47,000

SYMPOSIA/MEETINGS

CHAPPELL, Neena, Centre on Aging, U. of Manitoba Evaluation Research for Community Health/Promotion Programs - November 1992	$ 2,500
GLASS, Helen, University of Manitoba. Nursing and Nursing Research: The Economic Context April 10 and 11, 1992	1,200
HASINOFF, Brian, Faculty of Pharmacy, University of Manitoba, Association of Faculties of Pharmacy of Canada May 1992	1,000
KROEGER, Ed, Faculty of Medicine, University of Manitoba, Advances in Research of Sexually Transmitted Diseases June 4, 1992	1,400
STEPHENS, Newman, Department of Physiology, University of Manitoba, Smooth Muscle Contraction: Recent Advances August 1992	1,000
TURLEY, Eva, Manitoba Institute of Cell Biology Extracellular Matrix and Cell Behavior - October 1991	1,500
YOUNG, T.Kue, Department of Community Health Sciences/Northern Health Research Unit, Cardiovascular Diseases in the Circumpolar Region July 3, 1992	1,400
	$ 10,000

LIST OF PERSONNEL AWARDS

SCHOLARSHIP AWARD RENEWALS

Scholar, Department, Institution. Project or Field of Research	Award Amount
ANDERSON, Judy E., Anatomy, U. of Manitoba. Regenerated Mdx muscle.	$ 44,000
GIETZ, R. Daniel, Human Genetics, U. of Manitoba. The genetic analysis of the yeast RAD6 ubiquitin ligase function: a gene involved in DNA repair, mutagenesis and sporulation.	44,000
McCLARTY, Grant A.,Medical Microbiology, U. of Manitoba. Reduction of ribonucleotides and DNA synthesis in chlamydiae.	44,000
SCHMIDT, Brian J., Neurology, U of Manitoba. Investigations of neural mechanisms of generating locomotion using an in vitro model of the mammalian spinal cord.	44,000
SIMONSEN, J. Neil, Medical Microbiology, U. of Manitoba. Characterization of antigens associated with human infection with Cryptosporidium and parasite enzyme targeting.	44,000
WATSON, Wade T.A., Pediatrics & Child Health, U. of Manitoba. Interrelationships of allergic disease.	44,000
	$264,000

SCHOLARSHIP AWARDS

Scholar, Department, Institution Project or Field of Research	Award Amount
BHULLAR, Rajinder P., Oral Biology, U. of Manitoba. Role of GTP-binding proteins in stimulus-secretion coupling process.	$ 42,000
BURCZYNSKI, Frank J., Pharmacology, U. of Manitoba. Transmembrane Solute Flux - Influence of Protein.	42,000
COOMBS, Kevin M., Medical Microbiology, U. of Manitoba. Molecular Role of Capsid Proteins in Virus Assembly.	42,000

Scholarship awards (continued)

Scholar, Department, Institution. Project or Field of Research	Award Amount
JOHNSTON, Janine L., Otolaryngology, U. of Manitoba. Inputs to vestibulo-ocular reflex (VOR) cancellation - lesion studies.	42,000
TRIGGS-RAINE, Barbara L., Biochemistry, U. of Manitoba. The Genetics and Biochemistry of B-Hexosaminidase.	42,000
	$ 210,000

ESTABLISHMENT GRANTS

Scholar, Department, Institution. Project or Field of Research	Award Amount
BURCZYNSKI, Frank J., Pharmacology, U. of Manitoba. Transmembrane Solute Flux - Influence of Protein.	$ 25,000
BHULLAR, Rajinder P., Oral Biology, U. of Manitoba. Role of GTP-binding proteins in stimulus-secretion coupling process.	25,000
COOMBS, Kevin M., Medical Microbiology, U. of Manitoba. Molecular Role of Capsid Proteins in Virus Assembly.	25,000
JOHNSTON, Janine L., Otolaryngology, U. of Manitoba. Inputs to vestibulo-ocular reflex (VOR) cancellation - lesion studies.	25,000
TRIGGS-RAINE, Barbara L., Biochemistry, U. of Manitoba. The Genetics and Biochemistry of B-Hexosaminidase.	25,000
	$ 125,000

POSTDOCTORAL FELLOWSHIP AWARDS

Fellow, (Supervisor), Department. Institution. Project or Field of Research	Award Amount
ALKHALAF, Moussa, (Leigh C. Murphy), Biochemistry, U. of Manitoba. Postdoctoral training in Molecular Endocrinology.	$ 24,775
Travel allowance.	1,000
GUSE, Lorna, (Neena L. Chappell), Centre on Aging, U. of Manitoba. Gerontology: Postdoctoral fellowship.	23,230
MUSTARD, Cameron A., (Leslie L. Roos), Community Health Sc., U. of Manitoba. Health Care Epidemiology and the Evaluation of Quality of Care.	24,775

Fellowship awards (continued)

Fellow, (Supervisor), Department. Institution. Project or Field of Research	Award Amount
NICKEL, Barbara E., (Peter A. Cattini), Physiology, U. of Manitoba. Molecular Biology.	26,320
ZALCMAN, Steve, (Dennis G. Dyck), Psychology, U. of Manitoba. Psychoimmunology.	24,775
ZHOU, En-Min, (Fred T. Kisil), Immunology, U. of Manitoba. Immunology/Allergy.	26,320
Travel allowance	1,000
	$152,195

GRADUATE STUDENTSHIP RENEWALS

Student, (Supervisor), Department, Institution. Project or Field of Research	Award Amount
ARMSTRONG, John D. (Bernard A. Kunz,), Microbiology, U. of Manitoba. Microbiology-molecular genetics.	$ 14,265
CARPENTER, Michael S. (A.M. Luke DeLange), Human Genetics, U. of Manitoba. Molecular biology/genetics.	14,265
CVITKOVITCH, Dennis G. (Ian Hamilton), Oral Biology, U. of Manitoba. Ph.D. on the molecular genetics of the PTS system of Streptococcus mutans.	14,265
DAI, Jian (Vincenzo Panagia), Physiology, U. of Manitoba. Experimental cardiology.	14,265
GUIA, Antonio (Ratna Bose), Pharmacology & Therapeutics, U. of Manitoba. Respiratory and cardiovascular pharmacology.	14,265
HALL, Madelyn (Karen Grant), Sociology, U. of Manitoba, Medical sociology.	14,265
LIU, Lei (Elissavet Kardami), Physiology, U. of Manitoba. Physiology in the field of cardiac cell biology.	14,265
MAGNUSON, Bernadene A. (Ranjana P. Bird), Foods & Nutrition, U. of Manitoba. Dietary effects on cancer development.	14,265
TIPPLES, Graham A. (Grant A. McClarty), Medical Microbiology, U. of Manitoba. M. Sc. in medical microbiology.	14,265

Graduate Studentship renewals (continued)

Student, (Supervisor), Department, Institution, Project or Field of Research	Award Amount
TYSON, Randy L. (James Peeling), Chemistry, U. of Manitoba. Chemistry, Ph. D.	14,265
WANG, Jianfang (Dennis W. Fitzpatrick), Foods & Nutrition, U. of Manitoba. Doctorate in foods and nutrition science.	14,265
WONG, Michael S.J. (Leigh C. Murphy), Biochemistry, U. of Manitoba. Biochemistry and molecular biology, Ph.D.	14,265
ZU, Xiangwei (Francis T. Jay), Medical Microbiology. U. of Manitoba. M.Sc./Ph.D. in medical microbiology.	14,265
	$185,445

GRADUATE STUDENTSHIP AWARDS

Student, (Supervisor), Department, Institution, Project or Field of Research	Award Amount
ALLARD, Yvon E., (Normand Leblanc), Physiology, U. of Manitoba. Cardiovascular physiology, Ph.D.	$ 14,265
CHEN, Yongzhong, (Jim A. Wright), Biochemistry, U. of Manitoba. Molecular biology of cancer, Ph.D.	14,265
CURPEN, Genevieve D., (Eva Turley), Physiology, Manitoba Institute for Cell Biology, Cell biology (Cancer) - M. Sc.	14,265
EL-HUSSEINI, Alaa E., (Robert P.Shiu/Jean Paterson), Physiology, U. of Manitoba. Physiology/endocrinology.	14,265
FAN, Huizhou, (Robert C. Brunham), Medical Microbiology, U. of Manitoba. Microbiology, Ph.D.	14,265
FRANSOO, Randall R., (Alan Martin/Dean Kriellaars), Physical Education, U. of Manitoba. Bone rehabilitation - Master of Science.	14,265
GIENI, Randall S., (Kent T. HayGlass), Immunology, U. of Manitoba. Ph.D. Immunology.	14,265
GONG, Yuewen, (Liam J. Murphy), Physiology, U. of Manitoba. Molecular endocrinology, Ph.D.	14,265
GU, Mai, (Deepak Bose/Bill Ong), Pharmacology & Therapeutics, U. of Manitoba. Cardiovascular pharmacology, Ph.D.	14,265

Studentship awards (continued)

Student, (Supervisor), Department, Institution. Project or Field of Research	Award Amount
GU, Jianguo, (Jonathan D. Geiger), Pharmacology & Therapeutics, U. of Manitoba. Neuropharmacology, Ph.D.	14,265
HAWRANIK, Pamela G., (Neena Chappell/Evelyn Shapiro), Community Health Sciences. U. of Manitoba. Public health policy and planning, Ph.D.	14,265
KRUPNIK, Eduardo, (J. A. Paterson), Anatomy, U. of Manitoba. Neuroscience, M.Sc.	14,265
KWOK, Yuk Ching Anita, (Francis T. Jay), Medical Microbiology, U. of Manitoba. Molecular biology, biochemistry, microbiology, M. Sc.	14,265
MACDONALD, Glen C. (John Gartner), Pathology, U. of Manitoba. Immunology, Ph.D.	14,265
MCCLEMENT, Susan E., (Lesley Degner), Intensive Care Unit, St.Boniface Hospital. Nursing research in palliative care, M. N.	14,265
MESAELI, Nasrin (V. Panagia), Physiology, St. Boniface Research Centre. Molecular mechanisms of cardiac function in health and disease, Ph.D.	14,265
MILLER, Alastair L., (William C. Cole), Physiology, U. of Manitoba. Cardiovascular electrophysiology, physiology, Ph.D.	14,265
MILLER, Teresa L., (James R. Davie), Biochemistry, U. of Manitoba. Molecular Biology of Breast Cancer, Ph.D.	14,265
MOHAPATRA, Subhra, (Alec Sehon), Immunology, U. of Manitoba. Molecular biology of immune suppression, Ph.D.	14,265
NESCA, Marc, (A. Martin), Psychology, U. of Manitoba. Clinical applications of sleep and dream research, Ph.D.	14,265
PENNER, Karen A.H., (Judy Anderson), Human Anatomy, U. of Manitoba. Gene expression in muscle regeneration, M.Sc., Human Anatomy.	14,265
PAETKAU, Donald W., (Daniel R. Gietz), Human Genetics, U. of Manitoba. Human Genetics, M. Sc.	14,265
POPPE-SCHREIMER, Nancy, (K.G. Standing), Chemistry/Physics, U. of Manitoba. Mass spectrometry of peptides, Ph.D.	14,265

Graduate Studentship awards (continued)

Student, (Supervisor), Department, Institution. Project or Field of Research	Award Amount
RANDHAWA, Arvider K., (Pawan K. Singal), Physiology, St.Boniface Research Centre. Role of peroxidation in heart disease and in cardiovascular pathophysiology, Ph.D.	14,265
ROBINSON, Kristine J., (Patricia Kaufert), Community Health Sc., U. of Manitoba. Community health - M.Sc.	14,265
SECCO, Loretta M., (Michael Moffatt), Community Health Sc., U. of Manitoba. Community health sciences, Ph.D.	14,265
SOMMER, Reena, (Gordon Barnes), Family Studies, U. of Manitoba. Family violence, Ph.D.	14,265
VRIEND, Catherine A.Y., (Dennis Dyck), Psychology, U. of Manitoba. Psychoneuroimmunology, Ph.D. Clinical health psychology.	14,265
	$ 399,420

SCIENTIFIC REVIEW COMMITTEE

Dr. J. Jamieson (Chairman), Department of Chemistry,
University of Manitoba.

Mr. R. Ebbeling, Department of Industry, Trade & Tourism,
Province of Manitoba.

Dr. A.D. Friesen, CAM Scientific,
Winnipeg, Manitoba.

Dr. E.A. Kroeger, Department of Physiology,
University of Manitoba.

Dr. J. Gerrard, Department of Pediatrics & Child Health
Health Sciences Centre.

Dr. W.W. Lautt, Department of Pharmacology & Therapeutics,
University of Manitoba.

Dr. L. Seier, Vita Health,
Winnipeg, Manitoba.

Mr. R.W. Siemens, Corporate Planning & Development,
Health Sciences Centre.

UNIVERSITY/INDUSTRY OPERATING GRANTS

Investigator(s), Department, Institution/Company. Project Title.	Year	Award MHRC	Company
BECKER, Allan, Dept. of Pediatrics & Child Health/ Merck-Frosst. A Canine Model for Asthma: Allergy, airway inflammation and the development of airway hyperresponsiveness.	1 2 3	$ 75,000 75,000 75,000	$ 100,000 100,000 100,000 (50% in cash) (50% in kind)
DOLYNCHUK, Ken, Dept. of Surgery, St. Boniface Hospital/ Synthes Canada Ltd. Establishment of a Craniofacial Laboratory in the St. Boniface General Hospital Research Centre.	1	9,531	9,531
GRYMONPRE, Ruby, Dept. of Pharmacy/Apotex Inc. A Pharmacy Resource Centre for Ambulatory Elderly: Program Implementation and Evaluation.	1 2 3	65,000 55,000 60,000	125,820 (over 3 yrs)
KHATTER, Jagdish C., Dept. of Internal Medicine & Pharmacology/Toyobo Co. Purification, Identification and Characterization of Endogenous Inotropic Substance(s) from Porcine Heart.	1	20,000	128,689
* Project was partially funded by the MRC of Canada University/Industry program (year 1 - $60,000, Year 2 - $40,000)			
PASTERKAMP, Hans, Dept. of Pediatrics/Childvent. Computerized Mapping of Respiratory Sounds.	1	40,000	40,000
SEMELKA, Richard C., Dept. of Radiology, St. Boniface Hospital/ISG Technologies Inc. Data analysis of cardiovascular information for magnetic resonance imaging.	1	116,550	295,794 (over 3 yrs)
		$591,081	$1,025,494